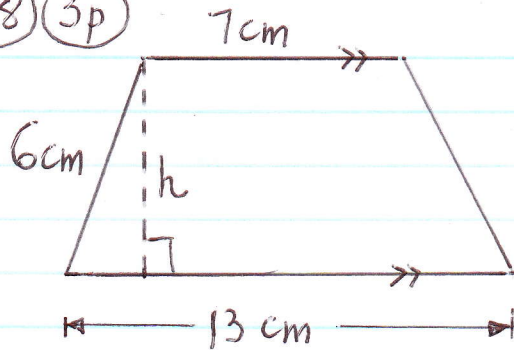


GEOM. CH. 8.2 p.419 TOTAL - 6p.

#8 (3p)



GIVEN:

$$b_1 = 7 \text{ cm}; b_2 = 13 \text{ cm}$$

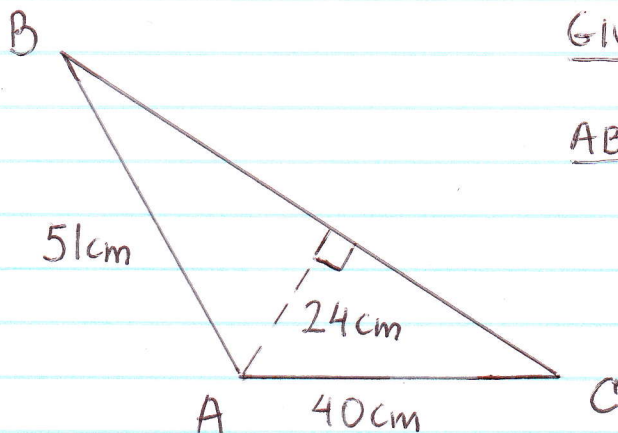
$$A = 50 \text{ cm}^2$$

$$h = ?$$

$$A_{\Delta} = \frac{(b_1 + b_2) \cdot h}{2}; 50 = \frac{(7 + 13)}{2} \cdot h$$

$$50 = \frac{20}{2} \cdot h; 50 = 10h \quad \underline{\underline{h = 5 \text{ cm}}}$$

#10 (3p)



GIVEN: $h = 24 \text{ cm}$

$$A = 924 \text{ cm}^2$$

$$AB = 51 \text{ cm}; AC = 40 \text{ cm}$$

$$P = ?$$

$$A_{\Delta} = \frac{1}{2} b \cdot h; 924 = \frac{b \cdot 24}{2}; 924 = 12b$$

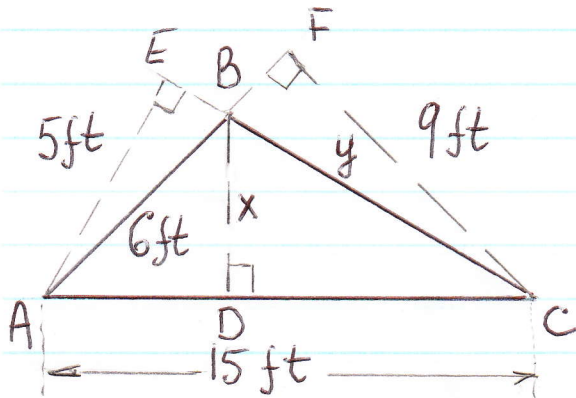
$$BC = b = \underline{\underline{77 \text{ cm}}}$$

$$P = AB + BC + CA = 51 + 77 + 40 = \underline{\underline{168 \text{ cm}}}$$

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#12

10 points



GIVEN: $AC = b = 15 \text{ ft}$

$AB = 6 \text{ ft}$; $BC = y$

$BD = x$; $AE = 5 \text{ ft}$;

$FC = 9 \text{ ft}$

$x = ?$ $y = ?$

$$AF = \sqrt{AC^2 - CF^2} = \sqrt{15^2 - 9^2} = \sqrt{144} = 12 \text{ ft}$$

$$y = BC = \sqrt{BF^2 + FC^2} = \sqrt{6^2 + 9^2} = \underline{\underline{10.8 \text{ ft}}}$$

($BF = 12 \text{ ft} - 6 \text{ ft} = 6 \text{ ft}$)

$$A_{\triangle ACF} = \frac{b \cdot h}{2} = \frac{AF \cdot FC}{2} = \frac{12 \cdot 9}{2} = 54 \text{ ft}^2$$

$$A_{\triangle BCF} = \frac{b \cdot h}{2} = \frac{BF \cdot FC}{2} = \frac{6 \cdot 9}{2} = 27 \text{ ft}^2$$

$$A_{\triangle ABC} = A_{\triangle ACF} - A_{\triangle BCF} = 54 - 27 = 27 \text{ ft}^2$$

$$A_{\triangle ABC} = \frac{b \cdot h}{2}; \quad 27 = \frac{15 \cdot x}{2};$$

$$54 = 15x \quad x = \frac{54}{15}; \quad x = \underline{\underline{3.6 \text{ ft}}}$$